b. Form 401 Changes

The Commission has proposed eliminating a number of information items now required by Table MOB-3 (item 37) of the current Form 401.[29] McCaw urges the Commission not to delete any of the items now specified as part of Table MOB-3. This data is used by McCaw and other cellular licensees to replicate and verify the calculations contained in applications that might affect McCaw's own operations. As the Commission is aware, licensees and applicants may use different sources of terrain data and differing interpolation techniques. Without ready access to the actual values used by the adjacent area licensee or applicant and as specified in Table MOB-3, McCaw cannot be sure that its results correspond to those derived by the applicant. The Table MOB-3 data serves a valuable purpose in facilitating the pursuit of interference-free operations, and its retention in full would serve the public interest.

The Notice also proposes to delete the current space on the form (item 36) for the antenna structure sketch.[30] Proposed Section 22.115(a)(2) specifies when an applicant must include an antenna profile sketch. McCaw believes that either the Form 401 itself or the directions also should clearly restate when a vertical profile sketch is required.

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[29] Notice, App. A at 18.

[30] Id.

This would reduce the likelihood that the sketch would be inadvertently omitted by the applicant.

In addition to the Commission staff's own use, adjacent area licensees find the antenna sketch useful in assessing possible interference. If the staff must request submission of the sketch after the application has been filed, that consumes limited staff resources. Moreover, it may be difficult for an adjacent area licensee to locate that amendment in the Commission's files. This situation can be readily addressed by adding appropriate language to the Form 401 or its directions.

D. Operational and Technical Requirements

Proposed Section 22.325 states that a person must be on duty at each control point. McCaw had previously received guidance from the Commission staff that it was not critical that a person be physically located at each control point. Rather, the Commission requires that there be mechanism by which a transmitter could be easily and readily turned off. Thus, the control point for a particular system might be monitored by a person responsible for a number of cellular systems who is readily available to immediately turn off facilities if so required. This type of monitoring structure should be explicitly permitted. Such arrangements promote efficient operation while ensuring that radio transmissions can be maintained in full compliance with the Commission's Rules.

Proposed Section 22.367 requires all cellular stations to radiate vertically polarized waves. It would promote efficient operations if the Commission were to permit cellular stations to radiate with either vertical or horizontal polarization. In that event, cellular repeater stations (also known as cell enhancers) could employ horizontal polarization to communicate information (regarding the transmissions it is handling) back to the donor site, which is necessary for the successful operation of the repeater. Horizontal polarization is an effective but easy way to gain isolation and reduce frequency interference with the vertically polarized donor cell site.

IV. PAGING AND RADIOTELEPHONE SERVICE

From the perspective of the paging/conventional two-way mobile industry, the Notice seeks to change Part 22 to ensure that (1) spectrum is efficiently used, and (2) given the limited resources of the Commission relative to the number of applications filed for Part 22 facilities, applications are expeditiously processed. McCaw supports these goals and applauds the Commission's efforts to implement new rules and procedures to accomplish them. McCaw fully believes that such actions will ultimately inure to the benefit of the public. Notwithstanding the foregoing, McCaw also believes that certain modifications and/or clarifications to the

proposed rules must be made to ensure that the public interest is fully served.

A. First-Come/First-Served and Mutually Exclusive Processing Rules

The Commission proposes in Section 22.509 to eliminate the rule that currently allows applicants for paging and conventional two-way mobile facilities 60 days from the date a co-channel application appears on an FCC public notice to file a mutually exclusive application. In its place, the Commission proposes to implement a "one-day" filing window, such that co-channel applications are mutually exclusive with one another only if they are filed on the same day. The express purposes for making the proposal are to eliminate the need for most lottery proceedings conducted under existing Section 22.33 of the FCC's rules; to expedite processing of applications by Commission staff; and to prevent "strike application" abuse by speculators or competitors who will no longer have a 60-day window within which to file a mutually exclusive application.

McCaw agrees there are significant benefits to be derived by having applications processed more quickly and by eliminating "strike" applications. On balance, however, it believes the rule as currently written does not serve the overall public interest because it may not allow existing licensees to expand their systems. This is an extremely

important consideration because more and more subscribers are demanding expanded, wide-area coverage.

McCaw fears that adoption of the proposed rule could serve to prevent paging and two-way mobile licensees from expanding their systems and from providing wide-area coverage because they will not know that a "blocking" co-channel application had been filed until the date for filing mutually exclusive applications had already passed.[31] The Commission itself raised the specter that its proposed ". . . procedure could, in some instances, limit the opportunity for carriers to file applications to expand an existing system on a specific channel."[32] The Notice accordingly seeks comments on how legitimate expansion can be accommodated on the one hand, while application processing can be expedited on the other hand.

With regard to ensuring more expeditious processing of applications for Part 22 paging and two-way mobile facilities, McCaw believes other proposals contained in the Notice will facilitate the expeditious processing of applications. For example, the Commission has proposed "self-certification" for the engineering portion of

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[31] Since the Commission proposes a one-day cut-off period, an application will effectively be cut-off from any mutually exclusive application by the time it appears on a Public Notice.

[32] Notice at ¶ 10.

applications[33] and the elimination of most Form 489 notification filings for permissive changes.[34] These proposals will have a positive impact on and result in more expeditious application processing. Mobile Services Division staff previously engaged in reviewing Form 401 engineering exhibits and analyzing Form 489 permissive change notifications will be able to devote more time to the few remaining areas of analysis of Form 401 applications.

Because proposed rules other than the "First-Come/First-Served" proposal will help to ensure that applications will be processed more expeditiously, the remaining issue is to determine what procedures can be established to ensure that existing licensees have an opportunity to expand their wide-area systems. McCaw suggests that existing co-channel licensees have 30 days from the date an application appears on a public notice to file an application that would be considered mutually exclusive with the first-filed application. This date specifies the same period as is currently prescribed for petitions to deny in the proposed rules. Adoption of such a procedure will allow applications to be processed expeditiously while not preventing the legitimate expansion of existing systems.

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[33] See id. at ¶ 11 (where the Commission states "[w]e are proposing to rely on the technical exhibits provided by applicants without verifying their accuracy prior to grant.").

[34] Id. at ¶ 17.

B. Multifrequency Transmitters

In proposed Section 22.507, the Commission has tentatively decided to require separate transmitters for every channel assigned at each location. This proposal would put an end to the existing industry practice of using multifrequency transmitters where two or more channels are authorized. The Commission's proposal is designed to (1) encourage spectrum efficiency (since multifrequency transmitters can only transmit on one frequency at a time) and (2) discourage spectrum warehousing.[35] McCaw disputes the Commission's conclusion that multifrequency transmitters inefficiently use spectrum and that a ban on multifrequency transmitters will be an effective deterrent to warehousing. McCaw instead believes that a number of proposals in the Notice will adequately guard against the abuses the Commission seeks to prevent while at the same time not denying significant public interest benefits to subscribers that result from the current use of multifrequency transmitters.

State of the art paging transmitters do not transmit pages on a real time basis. Rather, as pages are received by a paging terminal, they are stored temporarily and then transmitted in batches -- whether using a single transmitter per channel or a multifrequency transmitter. Thus, at least

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[35] Notice, App. A at 12.

up to the point at which a channel starts to become fully loaded, spectrum inefficiency is not created by the use of multifrequency transmitters. At many levels of usage, in fact, there is absolutely no difference in spectrum efficiency whether a multifrequency or single frequency transmitter is used.

There are other, more effective regulatory means to prevent warehousing. At least insofar as paging and radiotelephone services are concerned, many of the rules proposed by the Notice are designed specifically to prevent warehousing. Among the proposed rules that should be effective in deterring spectrum hoarding are the "finder's preference" rule[36] and the rule that prohibits an entity from reapplying for a facility for a period of one year in the event its authorization is automatically terminated.[37] Also, the "Additional Channel Rules,"[38] which prohibit an entity from having more than a specified number of applications on file at one time, are designed specifically to prevent filings that might otherwise be used to warehouse spectrum. In view of these anti-warehousing rules, McCaw submits that the proposed ban on the use of multifrequency transmitters is unnecessary.

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[36] See proposed § 22.167.

[37] See proposed § 22.121(d).

[38] See proposed §§ 22.539, 22.569.

The foregoing is especially true because the use of multifrequency transmitters provides benefits that promote the public interest. For example, over the past few years, paging customers have demanded wide-area systems. As certain paging channels were identified as being available on a regional basis, the use of multifrequency transmitters enabled carriers to provide the demanded wide-area service by using the existing infrastructure of the "local" paging system. Because the incremental cost to provide service using a second channel (when incorporated into a multifrequency transmitter) is significantly lower than if discrete, separate transmitters are used, carriers can provide wide-area paging services to customers at lower cost.

Though the use of multifrequency transmitters is perhaps most prevalent in the 900 MHz paging band, benefits similar to those described above are available for conventional two-way mobile frequencies. As cellular radio services have become more popular, many conventional two-way mobile subscribers have converted to cellular service. There are, however, still some two-way mobile customers with single frequency mobile units who have declined to switch to cellular. In light of the transition to cellular service, it is becoming increasingly difficult for a two-way mobile carrier with a number of conventional two-way frequencies in the same area to continue economically to provide service to a smaller customer base. By using a multifrequency

transmitter instead of three separate single frequency transmitters, for example, a two-way mobile carrier will be able to eliminate or substantially reduce site rent for two of three transmitters, interconnect costs for two rather than three terminals and other similar expenses while continuing to provide service to subscribers on three different two-way channels. The reduction in operating costs attributable to the use of multifrequency transmitters, therefore, may render it possible for two-way carriers to continue to provide this service to meet the needs of their subscribers.

V. CELLULAR RADIOTELEPHONE SERVICE

A. Major/Minor Filings; Minor Modifications; Additional Transmitters

McCaw suggests that the Commission rework the proposed rules defining major and minor filings (proposed Section 22.123) and prescribing procedures for minor modifications to existing systems (proposed Section 22.163) and installing additional transmitters (proposed Section 22.165). As currently drafted, the proposed rules are inconsistent with the Commission's recent rule changes in its unserved area proceeding and are confusing with regard to the type of filing required for particular system changes.

Proposed Section 22.123(e), for example, should be revised to reflect the Commission's recent decision in its unserved areas proceeding to allow carriers to add

transmitters and make changes upon the filing of a Form 489 with the Commission if the market is within its five-year fill-in period.[39] As drafted, proposed Section 22.123(e) appears to reincorporate a requirement that a carrier file a Form 401 each time it expands its system, even during the five-year fill-in period.[40] This would eliminate the welcome change to notification filings introduced by the new, streamlined rules in CC Docket No. 90-6 and is inconsistent with the Commission's stated desire to minimize unnecessary filings.

In conjunction with changes to proposed Section 22.123, the Commission should reconsider the provisions of proposed Sections 22.163 and 22.165. Initially, the introductory language in proposed Section 22.163 should be revised to state that "[l]icensees may make modifications to existing stations without prior notification or obtaining prior Commission approval." Without this clarification, a Form 489 notification for such changes apparently would be required.

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[39] See 47 C.F.R. §§ 22.913, 22.923, set forth at 57 Fed. Reg. 13646, 13649 (Apr. 17, 1992).

[40] Proposed Section 22.123(e)(2) is confusing and inconsistent with the statements of purpose in the Notice and other recently adopted rules. For example, while proposed Section 22.123(e)(2)(i)(A) specifically addresses "new" CGSAs, it could be interpreted to mean a modified or enlarged CGSA proposed by the existing licensee. Similarly, proposed Section 22.123(e)(2)(ii)(B) can be interpreted to require a major filing where the CGSA, within the confines of the market boundary, is enlarged.

If the Commission intends to allow most changes to a system to be made on a Form 489 notification basis as a result of its Second Report and Order in the unserved areas proceeding, it is necessary to add an additional paragraph to Sections 22.163 and 22.165 that requires licensees to file Forms 489 for transmitters or changes to transmitters that constitute a system's outside 32 dBu contours or "cloud." Possible language to achieve this goal, to be incorporated in a new subparagraph (b), is: "The contours of the facilities to be modified do not constitute part of the service area boundary of the system."

Without this requirement, a market potentially could go five years without making any filings, and other carriers, as well as the Commission, would not be able to track a system's development. Requiring cellular carriers instead to have on file information showing the outside contours of a system is important for several reasons. First, it provides vital information to adjacent markets seeking to minimize interference or to track the source of interference problems. It also gives adjacent markets information they may need to design systems that efficiently handle roamer traffic and intersystem handoff. Finally, it provides the Commission and the public with a continually updated snapshot of the growth of cellular service in a particular market.

The Commission also should require licensees to make a Form 489 filing to identify new fringe sites when an existing

fringe site is taken out of service. In that case, a formerly internal site may become a 32 dBu boundary site. Information on such sites is useful for the reasons stated above.

McCaw agrees with the Commission that no filings should be required for new transmitters or modifications to transmitters within a system's core. Notification of these changes can be eliminated without adversely affecting the public interest. McCaw is troubled, however, by the Commission's statement that internal sites for which no Form 489 is filed will not have frequency protection.[41] The Commission traditionally has licensed cellular systems on a protected market basis.[42] This policy supports protecting all cell sites of a system (so long as they otherwise are operated in accordance with other Commission rules), whether a Form 489 is filed or not.

In addition, under the proposed rules, frequency coordination with markets within 75 miles of a transmitter is required regardless of whether a filing is made with the Commission. Because adjacent markets will be aware of the frequency use, interference protection should be extended to

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[41] See Notice, App. A at 10 ("We are proposing to eliminate the requirement that licensees notify the Commission of such additional transmitters. Of course, there would be no record of the additional transmitters in the station files or computer data bases; consequently, these transmitters would not be protected from interference.").

[42] E.g., 47 C.F.R. § 22.902(a) (1992).

unfiled core sites. Alternatively, the Commission should give carriers the option of filing Forms 489 for all cell sites, interior or not, in order to obtain frequency interference protection.

B. Dispatch Service

Proposed Section 22.901 specifies that cellular carriers may not provide dispatch services. "Dispatch service" is not defined either in this section or elsewhere in Part 22. To clarify this restriction, the Commission should include a specific definition. McCaw recommends that the Commission use the definition adopted in the Flexible Cellular decision: "Two-way voice communication, normally of not more than one minute's duration, that is transmitted between dispatcher and one or more land mobile stations, directly through a base station, without passing through the mobile telephone switching facilities."[43] In addition, Section 22.901 should specify that, if a dispatch-type communication passes through the mobile telephone switching office, it is not encompassed within the scope of the prohibition.

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[43] Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunications Service, 3 FCC Rcd 7033, 7043 (1988). See also 47 C.F.R. § 22.2 (1991).

C. Emission Designators and Related Matters

The proposed rules appear to be internally inconsistent with respect to the employment of cellular digital technology; indeed, certain of the rules fail to take full account of the widespread emergence of such technology. The Commission has acknowledged that cellular carriers will increasingly be employing digital technology in their systems. The proposed definition of cellular system includes a specific recognition of this fact:

> . . . Cellular systems may also employ digital techniques such as voice encoding and decoding, data compression, error correction, and time or code division multiple access in order to increase system capacity.[44]

Despite this general acknowledgement, the rules governing technical requirements do not specifically provide for this important technology. Indeed, digital technology currently requires special notification to the Commission as an alternative technology under proposed Section 22.901 (and existing Section 22.930). Proposed Sections 22.357, 22.359, 22.915, and 22.917 should all be modified to accommodate the modulation scheme associated with cellular digital technology. Such rule changes would render unnecessary the filing of a Form 489 notification pursuant to Section 22.930 now required under the Rules.

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[44] Proposed § 22.99.

D. Height-Power Rules

Proposed Section 22.913 prescribes maximum effective radiated power limits as well as height-power rules. The proposed version deletes the current provision permitting adjacent licensees to execute agreements to allow neighbors to exceed the height/power limits. This mechanism for obtaining a routine waiver should be retained in the rewritten Part 22. Waiver of height/power limits by contract preserves Commission resources by allowing carriers to resolve the issue among themselves. McCaw's experience with the coordinated agreement procedure has been a good one and it believes that retaining the rule makes sense.

E. SID Code Changes

The Commission has proposed in Section 22.941 that licensees notify the agency on Form 489 of any changes in the cellular system identification number ("SID code"). McCaw supports this proposal. At present, licensees affirmatively seek Commission consent to employ a SID code other than the one indicated on the authorization. Employing a Form 489 notification will conserve Commission resources and afford carriers with enhanced flexibility to operate their systems to meet customer needs. The rule should state, however, that SID codes may be changed only pursuant to an agreement with the carrier whose SID code will be employed.

F. Responsibility for Mobile Stations

Proposed Section 22.927 describes the responsibility of existing licensees for mobile stations. In two places, the rule language refers to the receipt of service pursuant to "legally effective tariff provisions." Cellular carriers do not currently file federal tariffs. Similarly, many states do not require the filing of tariffs by cellular operators. This clause should be omitted.[45]

VI. CONCLUSION

McCaw supports many of the changes suggested by the Commission. With the modifications detailed above, McCaw believes that the new Part 22 rules will provide a sound basis for the efficient and effective regulation and

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[45] The proposed rules set out in Appendix B to the Notice incorporate some but not all of the revised rules adopted in the Commission's unserved areas and cellular renewal proceedings. See Unserved Areas in the Cellular Service, 6 FCC Rcd 6185 (1991) (First Report and Order and Memorandum Opinion and Order on Reconsideration), modified, 7 FCC Rcd 2449 (1992) (Second Report and Order), pets. for recon. pending; License Renewals in the Domestic Public Cellular Radio Telecommunications Service, 7 FCC Rcd 719 (1991), pets. for recon. pending. McCaw urges the Commission to ensure that all such revised rules be incorporated into the rules finally adopted in this proceeding.

operation of common carrier mobile services in the public interest.

Respectfully submitted,

McCAW CELLULAR COMMUNICATIONS, INC.

By: Cathleen A. Massey

Mark R. Hamilton
Cathleen A. Massey
McCAW CELLULAR COMMUNICATIONS, INC.
1250 Connecticut Ave., N.W.
Suite 401
Washington, D.C. 20036
(202) 223-9222

Steve Dussek
David Aas
McCAW CELLULAR COMMUNICATIONS, INC.
Paging Division
12112 115th Avenue, N.E.
Kirkland, WA 98034

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